Abstract

Disclosed is a capacitance accelerometer comprising a fixed electrode, a movable electrode and support beams. The fixed electrode has rectangular fixed electrode plates arranged parallel with a top surface of an insulation board. The fixed electrode plates are placed one above another via posts, and arranged on an electrode-fixing section of the insulation board. The movable electrode has rectangular movable electrode plates alternating with the fixed electrode plates. The movable electrode plates are placed one above another via connector posts placed within guide holes perforated through the fixed electrode plates. The support beams connect the movable electrode with beam-fixing sections to elastically support the movable electrode. The capacitance z-axis accelerometer can be integrated together with x- and y-axis accelerometers into a single chip, maximize the change of capacitance to achieve excellent acceleration sensitivity, and utilize an amplifier and a filter of low cost.